Summary

Executive summary: Proposals have been submitted for the 108th session of WP15 which aim to clarify the distance between the rear of a tank and the rear of the bumper. This paper provides an alternative form of words that are intended to improve clarity and avoid ambiguity.

Action to be taken: Amend ADR 9.7.6.

Related documents: ECE/TRANS/WP.15/2020/5

Introduction

1. Proposals to amend ADR 9.7.6 of ADR that have been submitted to WP15 in document ECE/TRANS/WP.15/2020/5 aim to clarify the distance that is required between the rear of a tank and the rear of the bumper. However, these proposals could be open to misinterpretation and this paper therefore proposes an alternative form of words that seek to avoid ambiguity.

2. Paragraph 8 of ECE/TRANS/WP.15/2020/5 includes the following proposal to amend the second sentence of ADR 9.7.6:

“There shall be a clearance of at least 100 mm between the rear wall of the tank, or of its projecting fittings in contact with the substance being carried, and the face of the bumper facing the rear wall of the tank.”

It is not clear however, how the clearance of 100 mm should be measured and in respect to the rear of the tank we believe the distance could be misinterpreted as follows:
3. The current text of 9.7.6 (ADR 2019) requires “a clearance of at least 100mm between the rear wall of the tank and the rear of the bumper (this clearance being measured from the rearmost point of the tank wall or from projecting fittings or accessories in contact with the substance being carried).” It would therefore seem that the intention is as follows:

![Diagram showing direction of travel and 100mm clearance](image)

To reflect this intention, alternative text is provided in Proposal 1 below which aims to make this requirement clear in ADR 9.7.6.

4. Paragraph 9 of ECE/TRANS/WP.15/2020/5 includes a proposal to amend the third sentence of ADR 9.7.6 but it would seem the proposed text could be open to misinterpretation. Proposal 2 below therefore provides alternative text that aims to clarify the requirements.

**Proposal 1**

5. To accurately define the 100mm clearance between the rear of the tank and the rear of the bumper, it is proposed that the text of proposal 1 within document ECE/TRANS/WP.15/2020/5 (changes to the second sentence of 9.7.6) should be amended to read (deleted text struck through and new text in bold and underlined):

   “There shall be a clearance of at least 100mm between the rear wall of the tank, or of its projecting fittings in contact with the substance being carried, and the face of the bumper facing the rear wall of the tank, and the rear bumper. This clearance shall be measured horizontally and parallel to the longitudinal axis of the vehicle between two transverse planes passing through the following points:
   
   (a) the extreme rearward part of the tank or of its projecting fittings or accessories in contact with the substance being carried and;
   
   (b) the foremost part of the bumper in the direction of travel

**Proposal 2**

6. To provide greater clarity, it is proposed that the text of proposal 2 within document ECE/TRANS/WP.15/2020/5 (changes to the third sentence of 9.7.6) should be amended to read (deleted text struck through and new text in bold and underlined):

   “Vehicles with a tilting shell with rear discharge for which the clearance of 100 mm cannot be respected are provided with a means of protection which protects the shell and the rear fittings in the same manner as a bumper. This additional protection shall have a section modulus of at least 20 cm³, and respect the have a minimum clearance of 100 mm between the point defined in (a) and foremost part of the additional protection in the direction of travel.”
Proposal 3

7. Provide the following transitional measure in section 1.6.5:

“Vehicles registered or entering into service before 31 December 2022 which do not meet the rear protection requirements of 9.7.6 applicable from 1 January 2023 may continue to be used.”

Justification

8. These amendments will ensure a common interpretation of the 100mm clearance that is required between the rear wall of the shell and the rear of the bumper. Given that clarification is considered necessary, there is likely to have been misinterpretation and transitional measures are therefore proposed to enable existing vehicles to continue being used.